

STRATEGIC PETROLEUM RESERVE

ENGINEERING CHANGE PROPOSAL

SUMMARY SHEET

CLASS I CHANGE

ECP NUMBER SJ-M/O-4633 TITLE Return Sugarland Unit #6 to Service

BUDGET SOURCE

SPR BLI _____

CONTRACTOR BASELINE

AUD

OTHER: Lease Contractor

AUTHORITY

PCCB ECC

SCHEDULE

YES
MILESTONE NUMBER _____
CMCR NUMBER _____

NO

TOTAL ESTIMATED COST OF CHANGE

FY 98

DESIGN _____

CONSTRUCTION _____

TOTAL **\$35,000**

PCCB/ECC SIGNATURES	DISPOSITION	COMMENTS CONDITIONS/LIMITATIONS
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	C O N C U R	N O N C U R	D A T E	
APM Management DOE SENIOR SITE OFFICIAL				
<i>E. N. Kelly</i> APM TECHNICAL ASSURANCE	✓		3/14/04	need pump curve put into Centra
<i>Wynn Pours</i> APM SYSTEMS AND PROJECTS	✓		16 Mar 2004	
<i>Bill</i> APM MAINTENANCE AND OPERATIONS	✓		3/15/04	
<i>Michael</i> APM PROJECT MANAGER	✓		3/17/04	
DOE CMO				
PROJECT MANAGER				
DEPUTY ASSISTANT SECRETARY - SPR				

PCCB/ECC ACTION

FULL APPROVAL CONDITIONAL/LIMITED APPROVAL DISAPPROVAL

Completed 1998

STRATEGIC PETROLEUM RESERVE ENGINEERING CHANGE PROPOSAL

ECP NUMBER SJ-M/O-4633		ECP TITLE Return Sugarland Unit #6 to Service		PAGE 1 OF 4	
CONTRACTOR CHANGE NO. / REV.		INITIATED BY Richard Krebs	DATE 1/22/2003	SUBMITTED BY Jill Derise	DATE 1/22/2003
PRIORITY <input type="checkbox"/> EMERGENCY <input type="checkbox"/> URGENT <input checked="" type="checkbox"/> ROUTINE	ORG / CONTRACTOR Shell Pipeline Company LP		PHONE NO. (504) 728-3573	ORG/CONTRACTOR Shell Pipeline Company LP	
				PHONE NO. (504) 728-7366	
	VALUE ENGINEERING <input type="checkbox"/> VEP (MANDATORY) <input type="checkbox"/> VECP (VOLUNTARY)		DRAWDOWN CRITICAL <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		ROM ESTIMATE \$ <u>35,000</u>

DESCRIPTION:
 PROBLEM / EXISTING CONFIGURATION
This ECP is being submitted as documentation of work that was done at Sugarland in 1998. Unit #6 was needed for deliveries to Placid Refinery; however, once the unit was operational it would trip on case pressure.

PROPOSED SOLUTION / ENHANCEMENT
Unit #6 was refurbished and returned to service. The refurbishment included:

- Welding the case to repair corrosion damage.
- Replace the bearings and seals.
- Chrome plate the shaft.
- Install gland covers.
- Install a new flush and drain system.
- Trim impeller from 14.00" to 12.25".

[Reference Shell AFE]

REASON/JUSTIFICATION
Returning Unit #6 to service allowed an increased delivery rate to the Placid refinery. The impeller was trimmed to prevent nuisance trips because of case pressure. The work was not considered to be a capital improvement (therefore not "unfunded liability").

CI'S AFFECTED

TECHNICAL ANALYSIS/RECOMMENDATION	IMPLEMENTATION METHOD <input type="checkbox"/> SUBCONTRACT <input type="checkbox"/> M&O LABOR (LOE) <input type="checkbox"/> COMBINATION
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ENGINEERING	DATE	DOE SSR	DATE	<input type="checkbox"/> CONCUR <input type="checkbox"/> NONCONCUR
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STRATEGIC PETROLEUM RESERVE

ENGINEERING CHANGE PROPOSAL
SOFTWARE, HARDWARE, FIRMWARE CHANGE

CONTRACTOR CHANGE NUMBER	REVISION NUMBER	ECP NUMBER	Page 3 of 4
		SJ-M/o-4633	
SOFTWARE CHANGE ANALYSIS		HARDWARE/SOFTWARE AFFECTED	
		(NOTE: REDLINE CI BOM)	
DISPOSITION OF PARTS			
<input type="checkbox"/> REWORK SITE COMPONENTS ONLY <input type="checkbox"/> REWORK ALL SITE COMPONENTS <input type="checkbox"/> COMPONENTS NOT AFFECTED <input type="checkbox"/> OTHER (DESCRIBE) _____			
COMPONENT COMPATIBILITY (LIST COMPONENTS SEPARATELY IF COMPATIBILITIES ARE DIFFERENT)			
<input type="checkbox"/> INTERCHANGABLE <input type="checkbox"/> DRAWDOWN COMPATIBLE <input type="checkbox"/> NONCOMPATIBLE			
OPCS SUPPORT ENGINEER	DATE	FUNCTIONAL MANAGER	DATE
IMPLEMENTATION/TEST COMMENTS			
WITNESSED BY			DATE
TEST APPROVED BY	DATE	CHANGE RELEASE AUTHORITY	DATE

**STRATEGIC PETROLEUM RESERVE
ENGINEERING CHANGE PROPOSAL
CONFIGURATION CHANGE AFFECTED REPORT**

"TO BE COMPLETED BY TECHNICAL REVIEW PROCESS, ENGINEERING AND CONFIGURATION MANAGEMENT ORGANIZATION DEFINED PROCESS"

ECP NO.

SJ-4633

CONTRACTOR CHANGE NO

REV.

CHANGE CLASSIFICATION

CLASS I

CLASS II

PAGE 4 OF 4

FUNCTIONS AFFECTED

DOCUMENTS AFFECTED

Y	N	ITEM	Y	N	ITEM
		LEVEL 1 <input type="checkbox"/> II <input checked="" type="checkbox"/> III <input type="checkbox"/> CRITERIA			ELECTRICAL
		PERFORMANCE CRITERIA			315 - CATHODIC PROTECTION
		RAM			350 - STANDARDS
		INTERFACE CHARACTERISTICS			INSTRUMENTATION
		I/O POINTS			401 - BLOCK DIAGRAM
		DOE LEVEL I, II, III SCHEDULES			402 - LOOP DIAGRAMS
		GUARANTEES/DELIVERABLES			403 - INSTRUMENT PLANS AND DETAILS
		SAFETY/ENV/FP (CIRCLE ONE)			404 - INSTRUMENT WIRING DIAGRAM
		SECURITY REQUIREMENTS			409 - INSTRUMENT INDEX
		OPCS SOFTWARE			450 - STANDARDS
		OPCS HARDWARE			MAPPING
		OPCS FIRMWARE			501 - ALIGNMENT SHEETS
		RANGES/ I/O POINTS			509 - PIPELINE DWGS (MAINLINE VALVES, DRIPS, SCRAPER, TRAPS
		DIP SWITCH SETTINGS/JUMPERS			550 - STANDARDS
		MASTER CI LIST			ARCHITECTURAL
		WELLHEAD CONFIGURATION			720 - ELEVATIONS AND FLOOR PLANS
		SPARES/PROVISIONING REQUIREMENTS			750 - STANDARDS
		OPERATIONS MANUALS			DOCUMENTATION
		MAINTENANCE MANUALS			900 - RESERVED
		GOVERNMENT FURNISHED EQUIPMENT			901 - TECHNICAL/PERFORMANCE/DESIGN CRITERIA
		ENERGY USAGE			910 - DESIGN DESCRIPTION/BASIS
		VALUE ENG. (COST SAVINGS)			911 - PROCESS SET POINT DOCUMENTS
		OPERATIONS MODELS			912 - EQUIPMENT LIST
		OTHER			913 - MOV LIST
					915 - ELECTRICAL SAFETY
					920 - I/O DOCUMENT
					930 - OPERATION AND MAINTENANCE MANUALS
					950 - STANDARD SPECIFICATIONS
					970 - TASK SPECIFICATIONS
					990 - CONFIGURATION MANAGEMENT REPORTS 1.B.O.M
					999 - RESERVED
			COMMENTS:xn		
		PIPING			
		101 - PROCESS FLOW DIAGRAMS			
		102 - MECHANICAL FLOW DIAGRAMS			
		103 - PIPING AND INSTRUMENTATION DIAGRAMS (P&ID'S)			
		104 - UTILITY FLOW DIAGRAMS			
		105 - GENERAL PIPING PLANS			
		106 - AREA PLANS (MECHANICAL EQUIPMENT LOCATION)			
		122 - WELLHEAD DRAWINGS			
		130 - VALVE LIST			
		135 - LINE LIST			
		140 - PSV LIST			
		150 - STANDARDS			
		CIVIL/STRUCTURAL			
		201 - PLOT PLANS			
		202 - SITE WORK, GRADING (ROUGH & FINISH DRAINAGE FENCING			
		210 - FOUNDATIONS: LOCATION PLANS			
		216 - MINES (WEEKS ISLAND ONLY)			
		250 - STANDARDS			
		ELECTRICAL			
		301 - AREA CLASSIFICATION			
		302 - ONE LINE DIAGRAMS			
		303 - SCHEMATIC DIAGRAMS			
		304 - POWER PLANS AND DETAILS			
		305 - LIGHTING PLANS AND DETAILS			
		307 - SUBSTATION PLANS AND DETAILS			
		308 - WIRING DIAGRAMS			
		310 - GROUNDING			
		311 - CONDUIT & CABLE SCHEDULES (INCLUDING INSTRUMENTS)			
		313 - MCC/SWITCH GEAR EVALUATION & SCHEDULE			

Engineering

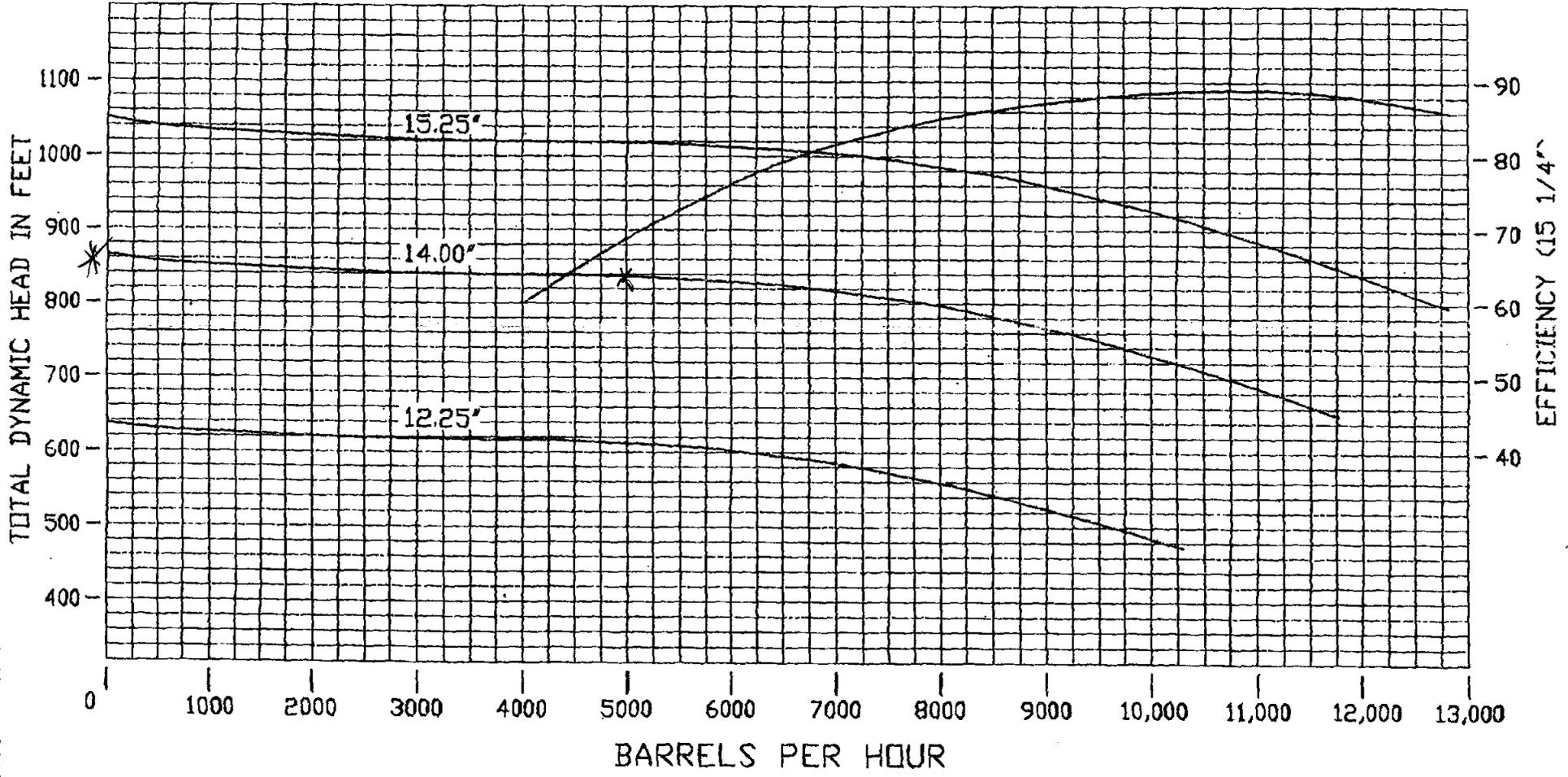
DATE

CONFIGURATION MANAGEMENT

DATE

ENGINEERING CHANGE PROPOSAL LIFE CYCLE COST FORM

ECP NUMBER: <i>SJ-M/O-4633</i>	ECP TITLE: Return Sugarland Unit #6 to Service						
EXECUTIVE SUMMARY: This ECP is being submitted as documentation of work that was done at Sugarland in 1998. Unit #6 was needed for deliveries to Placid Refinery; however, once the unit was operational it would trip on case pressure.							
IMPLEMENTATION PLAN: Unit #6 was refurbished and returned to service. The refurbishment included: <ul style="list-style-type: none"> • Welding the case to repair corrosion damage. • Replace the bearings and seals. • Chrome plate the shaft. • Install gland covers. • Install a new flush and drain system. • Trim impeller from 14.00" to 12.25". 							
<table style="width: 100%; border: none;"> <tr> <td style="width: 40%;">IMPLEMENTATION COST:</td> <td>DESIGN:</td> </tr> <tr> <td></td> <td>CONSTRUCTION:</td> </tr> <tr> <td></td> <td>TOTAL: \$35,000</td> </tr> </table>		IMPLEMENTATION COST:	DESIGN:		CONSTRUCTION:		TOTAL: \$35,000
IMPLEMENTATION COST:	DESIGN:						
	CONSTRUCTION:						
	TOTAL: \$35,000						
LIFE CYCLE COST: Not applicable. Not a capital improvement project.							
IMPACT SUMMARY:							
LEVEL I, II, and III CRITERIA:	CONTRACT COMPLETION DATES:						
CODES, REGULATIONS, PERMITS, ETC.:	GOVERNMENT-FURNISHED EQUIPMENT:						
SAFETY, ENVIRONMENTAL, FIRE PROTECTION SYSTEMS, SECURITY:	SCHEDULE:						



QUILON PIPELINE	B'HAM 12x12x15.25HSB
WIGARLAND TERMINAL	IMP. DIA. AS SHOWN
OPERATED 4/17/00	RPM 3550

PUMP SERVICE & REPAIR
 501 TIME SAVER AVE.
 JEFFERSON LA 70123

PSR JOB #	19195
SERIAL NO.	1A807
CURVE NO.	19195-1